

Total length of *Pr. nigro-aculeata*, measured in the flesh, 31 inches, while Gervais gives as the greatest length of *Pr. bruijni* 24 inches.

Hab. Charles Louis Mountains, Dutch New Guinea.

I append here for reference the habitats of the other two described forms of *Proechidna* :—

Pr. bruijni and its varieties *P. villosissima* and *P. leucocephala* : Arfak Mountains, Dutch New Guinea.

Pr. novæ-guineæ : Finisterre Mountains, German New Guinea.

2. ACROBATES PULCHELLUS, sp. nov.

I venture to think that this discovery of the late A. Bruijn's will prove of extreme interest to zoologists as adding a second species to a genus hitherto represented by a single form, and also as proving the much wider geographical distribution of a highly specialized genus.

This species differs from *Acrobates pygmæus* of New South Wales in its more purplish-brown colour, its broader and more robust head, much shorter tail, and comparatively smaller body. On the ventral surface it is much whiter than *A. pygmæus*, and the whole of the throat and sides of the lower jaw are pure white, while in *A. pygmæus* they are yellowish grey. Round the eyes and reaching almost to the nostrils is a blackish-brown patch. Ears rather smaller than in *A. pygmæus*. Tail in *A. pulchellus* $2\frac{1}{4}$ inches long, while in *A. pygmæus* it is $3\frac{1}{2}$.

Hab. One of the small islands in Northern Dutch New Guinea.

2. On Mammals from Nyassaland.

By OLDFIELD THOMAS, F.Z.S.

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By the kindness of Mr. Sclater I have been entrusted with the examination of the fine series of Mammalia sent home to him by Mr. H. H. Johnston, C.B., F.Z.S., Consul-General of Mozambique and H.M. Commissioner for Nyassaland, under whose auspices they were collected by Mr. Alexander Whyte, F.Z.S., a trained naturalist and collector on Mr. Johnston's staff, who is engaged in investigating the fauna and flora of Nyassaland. It is impossible to speak too highly of the scientific energy and public spirit of Mr. Johnston in thus furthering our knowledge of the natural productions of the region which he is called upon to govern—conduct very greatly in contrast to that of many Englishmen in official positions, who, under the name of sport, exterminate the native fauna of many most interesting localities, without a thought either for the needs of science at large or for those of their own National Museum in particular. Of the specimens now sent home a full set is presented by Mr. Johnston to the Museum, as is also the case with the birds, reptiles, and animals of all classes, as well as with the plants which he has been instrumental in getting collected for the benefit of science.

Mr. Whyte, the actual collector, also deserves special mention for the energy with which he has carried out the work entrusted to him and for the care and attention which he has devoted to the preservation of the specimens.

The region from which the present collection is derived is what is called the "Shiré Highlands," some of the specimens coming from Zomba, where the British Consulate is, some 20 miles to the west of Lake Shirwa, at an elevation of 2971 feet above the sea-level; and others, in fact the majority, from the Milanji range of mountains, about the same distance to the south of the lake, and some 40 or 50 miles from Zomba. To this range Mr. Whyte made a special exploring expedition in October and November 1891, and he has given a general account of the physical features of the range, and its fauna and flora, in the Parliamentary report quoted below¹.

As might be expected from a collector of Mr. Whyte's experience, all the skins are carefully labelled with the exact locality, date, and altitude, and the same was the case with the spirit-specimens; but by an unfortunate accident, before these latter came into my hands, the labels became separated from the bottles, so that the exact details about them were lost. All, however, are either from Mt. Zomba or Mt. Milanji.

The species are of course, as a whole, very similar to those obtained by Prof. Peters in his famous exploration of Mozambique, and described by him on his return to Berlin². They are, however, by no means of less value on this account, for the more our knowledge of local variation extends, the more we need to have specimens obtained at or near the localities explored by the earlier collectors. Of actually new species there are none in the present instalment, but there is little doubt that, as Mr. Whyte's knowledge of the locality increases, he will be able to obtain the rarer and more local species, and among these there are certain to be some novelties. One animal, however, in the present collection, the Pallah, is so different from the ordinary specimens as to need a new subspecific name, and the same may prove to be the case with some of the other antelopes of the highlands of Nyassaland.

1. FELIS PARDUS, L.

- a. Ad. sk. and skull. ♂. Milanji. 4/11/91.
- b. Ad. sk. and skull. ♀. Milanji. 4/11/91.
- c. Young skull. Milanji. 1/92. "Young leopard-cub about 2 months old."

a. "Male Leopard, full-grown adult, shot at the base of Milanji mountain, B.C.A., 4 days' march from Zomba, on 4th November, 1891. Dimensions: 6 ft. 10 in. long in flesh, not stretched, and 2 ft. 7 in. at shoulder, and weighing 140 lbs. Colour normal-fulvous with black rosettes and spots. The occipital ridge for attachment

¹ Africa No. 5. Papers relative to the suppression of Slave-raiding in Nyassaland, p. 15 (1892). See also 'Nature,' vol. xlv. p. 482 (15th Sept. 1892).

² Reise nach Mossambique, Säugethiere, 1852.

of muscles of jaw is exceptionally prominent, I think—much more so than is usually the case. This animal killed a donkey (full-grown) by attacking it in the *flank* and disembowelling it. The head and neck did not have a single claw-mark on them. This is a most exceptional case, and I do not think I ever heard before of a Leopard killing its prey otherwise than by springing on the head and neck.

“Another most unusual occurrence in this case was that the Leopard returned to the carcass and was shot dead on the third night, after having been wounded on the chest the second night with a charge of small shot, which was afterwards found under its skin.”—*A. Whyte*.

The basal length of the skull of the old male is 207 mm., and its breadth 148 mm. The length of the cub's skull is 87, and of its long mp³ 19 mm.

2. HYÆNA CROCUTA, Erxl.

a. Ad. skull. ♀. Milanji. 5/11/91.

b. Imm. sk. and skull. Milanji. 5/11/91.

a. “2 ft. 10 in. in height at shoulder and 150 lbs. in weight. Mangy and sparsely covered with short hair; colours dull. Shot over carcass of donkey killed by Leopard two days previously.”

b. “Three parts grown Spotted Hyæna, shot near same carcass. Same species as *a*, but with fine long hair, and colours well defined, looked quite a different species but proved only to differ in being younger and in finer felt.”—*A. W.*

Skull *a* is 241 mm. in basal length, and 179 in breadth.

3. PETRODROMUS TETRADACTYLUS, Peters.

a. Zomba. 1/9/91.

b. Zomba.

c. Ad. al. ♂.

4. VESPERUS MEGALURUS, Temm.

a. Ad. sk. Milanji Plain, 4000 ft. 18/12/91.

b, c. Ad. sks. Zomba. 10/12/91 and 1/2/92.

d-o. 3 ad. ♀ and 9 young in al. Forearms of adults 47·3, 47·5, and 48·5 mm.

This rare species was unrepresented in the Museum collection when the Catalogue of Bats was published, but a single specimen of it procured by Dr. Dobson in the Drakenberg Range, Natal, was obtained from that gentleman in 1881.

5. VESPERUGO NANUS, Peters.

a. Ad. al. ♂.

6. SCIURUS MUTABILIS, Peters.

a, b. Milanji Plateau, 6000 ft. 27/10 and 25/11/91.

These two specimens are of considerable interest and value as helping to clear up the confusion which surrounds the relationship of *S. shirensis*, Gray¹, to *S. mutabilis*.

¹ Ann. Mag. N. H. (3) xx. p. 327 (1867).

Firstly, they prove conclusively that the latter species has a seasonal change of colour, the two coats being the one a grizzled rufous and the other a grizzled grey. Peters's type, as figured by him, was a changing specimen with the anterior half of the body grey and the posterior rufous. Specimen *a* is in very much the same state, and in my opinion unquestionably belongs to the same species. From the relative lengths of the two sorts of fur, it is evidently changing from the rufous to the grey phase, and the latter is therefore obviously the summer form. In specimen *b*, killed a month later, the change has gone a little further, the grey fur having become as long as the rufous, while the latter has much decreased in area; the hairs on the centre of the back are deep black to their roots.

Of the three co-types of *S. shirensis*, Gray, one, young, is in the rufous state, except that its extremities are grey, but the two adults are both wholly in their grey coats. They are, however, quite uniform in colour, and have no black patches on their backs. All the specimens examined have one premolar only in the upper jaw, although Peters's type was said to have two, and on this account *S. mutabilis* and *S. shirensis* were kept apart in Dr. Jentink's monographs of the African Squirrels¹.

My own conclusion is that the new Nyassa specimens, with one premolar, are certainly *S. mutabilis*, a determination which destroys the importance of the presence or absence of the extra premolar in this form, and then, this character being gone, that there is nothing to separate the two forms but the black dorsal patches of *mutabilis*, and that as to these we must be content to wait until further specimens prove them to be due either to individual variation, to advanced age, or to genuine specific distinction. But the fact that the types of *S. shirensis* came, as their name implies, actually from the River Shiré is strongly in favour of their specific identity with Mr. Johnston's Nyassa examples.

7. SCIURUS PALLIATUS, Peters.

a, b. ♂ ♀. Milanji Plateau, 6000 ft. 29/10/91.

c. ♂. Milanji Plateau, 6000 ft. 2/11/91.

8. OTOMYS IRRORATUS, Brants.

a. Ad. al. ♀.

Like specimens of this species collected by Mr. Jackson in Mianzini², Masailand, this individual has a molar lamina-formula of $\frac{3-2-7}{4-2-2}$.

9. GERBILLUS (TATERA) AFER, Gray (?).

a-d. 4 in al.

The South African species of the subgenus *Tatera* are so little

¹ N. L. M. iv. p. 18 (1882). Dr. Jentink, however, implies that some doubt exists as to the skull in Peters's type-skin really belonging to it.

² See P. Z. S. 1891, p. 184.

known, and show such extremely slight differential characters, that it is at present almost impossible to say whether *G. afer*, Gray, *G. montanus*, Smith, *G. leucogaster*, Peters, *G. boehmi*, Noack, and *G. validus*, Boc., are all or any of them worthy of specific distinction. Much larger series from different localities will be needed before it is possible accurately to work out this difficult group, and in the meanwhile I use the earliest name available. In any case these Nyassa specimens are so closely allied to the ordinary South African Gerbille that little doubt can exist as to their specific identity with it.

10. *CRICETOMYS GAMBIANUS*, Waterh.

a, b. 2 yg. al. ♀.

11. *MUS RATTUS*, var.

a. Ad. sk. Milanji Plain, 4000 ft. 25/10/91.

b-d. In al.

One of the numerous brown tropical varieties of the common *Mus rattus*.

12. *MUS DOLICHURUS*, Smuts.

a, b. Ad. and imm. sk. Zomba. 8/8/91.

These specimens represent, of course, Peters's *M. arborarius*, which, as already mentioned¹, I cannot distinguish specifically from *M. dolichurus*. As this long-tailed Tree-Mouse seems to be rare throughout its wide range, these examples are very welcome accessions to the Museum collection.

13. *MUS NATALENSIS*, A. Sm.

a. Ad. sk. Zomba. 19/1/92.

(?) *b.* Zomba. 17/9/91.

c-e. 3 in. al.

This appears to be the *Mus microdon* of Peters.

14. *MUS MUSCULUS*, L.

a, b. 2 in al.

The fur of these specimens is rather crisp and spiny, and it may be that when the *musculus* group is worked out in detail the South African form will require a distinct name. One of Sir Andrew Smith's specimens in the Museum is also similarly spiny, and belongs no doubt to the same race. All the essential characters, including the skull and teeth, are quite as in normal *M. musculus*.

15. *MUS (LEGGADA) MINUTOIDES*, A. Sm.

a-e. 10 in al.

These specimens represent, of course, Peters's *Mus minimus*, synonymous, as I believe, with Smith's previously described species.

¹ P. Z. S. 1891, p. 186.

16. *ISOMYS DORSALIS*, A. Sm.

a. Ad. al. ♀.

It appears on the whole more convenient to recognize *Isomys* as a genus distinct from *Mus*, as it unquestionably is a natural group, and no species really intermediate between the two are known. Trouessart's *Lemniscomys* I include, of course, with *Isomys*, as, apart from the small value of striation as a generic character, certain of the species (e. g. *I. abyssinicus* and *I. variegatus*) are quite intermediate even in this character.

17. *ISOMYS PUMILIO*, Sparrm.

a-e. 5 ad. sk. Milanji Plateau, 6000 ft. 27/10/-2/11/91.

"The common Rat of the Milanji Plateau, 6000 feet; has a metallic chirp very similar to the Warblers or Tailor-birds of Ceylon, and I was sure at first that the noise came from a bird."—*A. Whyte*.

These specimens, although rather smaller and more brightly and definitely marked, may be fairly assigned to the typical Cape *I. pumilio*; but the same cannot be said of some other specimens hitherto referred to that form, which these beautiful specimens have enabled me more carefully to examine and compare, and which I now consider to represent two distinct subspecies, and may take this opportunity of describing.

The first is a northern form, based on two specimens taken much further north than the species was otherwise known to occur, namely in Masailand, near Lake Naivasha. It may be called—

Isomys pumilio diminutus, subsp. n.

Size decidedly smaller, and tail shorter, than in typical Cape examples. Ground-colour of body strongly suffused with yellowish orange, especially on the rump. Inner surface of ear rich fulvous, and a tuft of similarly-coloured hairs at the anterior base; anterior margin of outer surface shining black, as usual. Dorsal lines fairly distinct, the lighter ones pale greyish white, the median and the lateral of much the same tone. Tail, as usual, blackish brown above, yellowish white on the sides and below.

Dimensions of the typical skin.—Head and body 94 mm.; tail 62; hind foot 20·2.

Hab. Mianzini, just east of Lake Naivasha, Masailand.

Coll. F. J. Jackson. August, 1889.

The second subspecies is an inhabitant of Bechuanaland, Central South Africa, and its colour peculiarities are those characteristic of the desert representatives of striped forms in all parts of the world:—

Isomys p. bechuanæ, subsp. n.

Size large; feet and tail much elongated; the latter nearly twice as long as in *I. p. diminutus*. General colour sandy or fawn-grey,